

# MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

Ref A 1/2009

7 September 2009

## SUGAR CANE CROP 2009

Status: End August 2009

### 1. CLIMATE

#### 1.1 Rainfall (Table 1a and 1b, Figure 1)

The island's average rainfall for the month of August 2009 was 146 mm over the sugar cane areas and represented 114% of the long-term mean (128 mm). Sector-wise rainfall for the month of August was well above the long-term mean in the North with 94 mm compared to 68 mm and in the East with 215 mm compared to 114 mm. It was below the long-term mean by 17% in the South (150 mm), by 8% in the West (24 mm) and by 14% in the Centre (166 mm).

Cumulative rainfall during the period October 2008 to August 2009 for the island amounted to 2117 mm and was 107% of the long-term mean of 1977 mm. During that same period 1261 mm were recorded in the North, 2635 mm in the East, 2489 mm in the South, 841 mm in the West and 2544 mm in the Centre. They represented 97%, 133%, 102%, 94% and 96% of the respective long-term mean for their sectors which stood at 1297 mm, 1986 mm, 2445 mm, 898 mm and 2664 mm.

**Table 1a. Rainfall (mm) of August for crops 2008, 2009 and the long term mean (LTM)**

	North	East	South	West	Centre	Island
<b>2008</b>	37 (54)	104 (91)	109 (61)	13 (50)	95 (49)	82 (64)
<b>2009</b>	<b>94</b> (138)	<b>215</b> (189)	<b>150</b> (83)	<b>24</b> (92)	<b>166</b> (86)	<b>146</b> (114)
<b>LTM</b>	68	114	180	26	192	128

\* figures in brackets are % of LTM

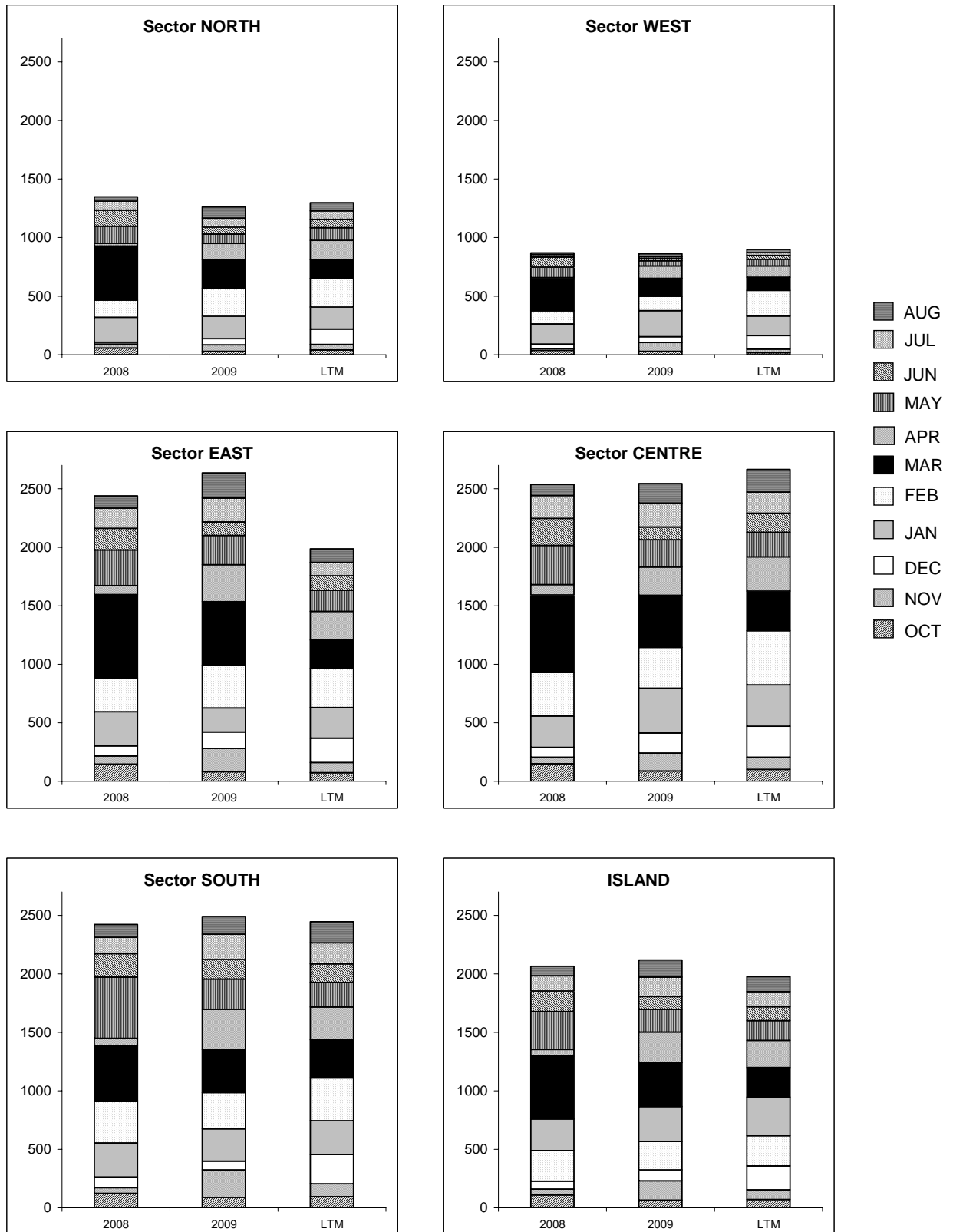
**Table 1b. Cumulative rainfall (mm) from Oct 2008 to Aug 2009 for crop 2009 compared to that of crop 2008 and the long term mean (LTM)**

	North	East	South	West	Centre	Island
<b>2008</b>	1348 (104)	2439 (123)	2421 (99)	869 (97)	2537 (95)	2065 (104)
<b>2009</b>	<b>1261</b> (97)	<b>2635</b> (133)	<b>2489</b> (102)	<b>841</b> (94)	<b>2544</b> (96)	<b>2117</b> (107)
<b>LTM</b>	1297	1986	2445	898	2664	1977

\* figures in brackets are % of LTM

[Source : raw provisional data from Meteorological Services]

**Figure 1. Monthly rainfall (mm) for period Oct 2008 to Aug 2009 for the 2009 crop compared to that of the same period for crop 2008 and of the long-term mean (LTM).**



## 1.2 Temperature (Table 2)

Data on maximum and minimum temperatures recorded during the month of August 2009 at MSIRI agro-meteorological stations are given below.

The mean maximum temperature was above normal at Union Park by 0.6 °C and at Belle Rive by 1.0 °C. It was below normal by 0.4 °C at Réduit and by 0.8 °C at Pamplemousses. The mean minimum temperature was close to the normal at Réduit but above normal at the other three stations. The resulting mean amplitude was below normal at all stations except at Belle Rive where it was comparable.

**Table 2 Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in August 2009**

Station	Maximum (°C)	Minimum (°C)	Amplitude (°C)
<b>Pamplemousses</b>	<b>25.1</b> (25.9) *	<b>17.0</b> (16.2)	<b>8.1</b> (9.7)
<b>Réduit</b>	<b>22.0</b> (22.4)	<b>15.4</b> (15.3)	<b>6.6</b> (7.1)
<b>Belle Rive</b>	<b>22.8</b> (21.8)	<b>14.8</b> (13.9)	<b>8.0</b> (7.9)
<b>Union Park</b>	<b>22.0</b> (21.4)	<b>15.9</b> (15.1)	<b>6.1</b> (6.3)

\* figures in brackets are the Normal (1971-2000)

## 1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that sunshine-hours during August 2009 were near to normal at Pamplemousses, Reduit and Belle Rive but below normal at Union Park. Recorded bright sunshine as a percentage of the normal amounted to 101 at Pamplemousses, 96 at Réduit, 97 at Belle Rive and 87 at Union Park.

**Table 3 Sunshine duration (hrs) recorded on MSIRI agro-meteorological stations in August 2009**

Station	August 2009	Normal	% of Normal
<b>Pamplemousses</b>	241	238	101
<b>Réduit</b>	214	223	96
<b>Belle Rive</b>	188	193	97
<b>Union Park</b>	126	144	87

## 2. Sucrose Accumulation (Table 4a and 4b)

Cane samples from miller-planters' land in all factory areas and covering the main cultivated varieties were analyzed for sucrose content. The average pol % cane (*richesse*) was calculated on the basis of area under cultivation of each variety in the different factory areas of each sector. The results are compared with those of the last two years.

**Table 4a Average Pol % Cane (*richesse*) at end August 2009.**

Sectors	R 573	M 695/69	R 575	M 387/85	M 1246/84	M 2256/88	M 1176/77	M 1400/86	R 579	M 3035/66	R 570
North	16.1				14.7		15.0	14.1	13.2		13.7
East	15.2				14.2	14.2		15.1	14.4	14.8	14.0
South	14.7	14.0					14.5	14.1	13.8		13.6
West	14.2	14.5	15.5	15.2			14.7	14.8			13.7
Centre		13.1		14.4			13.6	13.4		13.7	12.1

The *richesse* at end-August 2009 was 14.4% in the North, 14.6% in the East, 14.1% in the South, 14.8% in the West and 13.4% in the Centre. Compared to the corresponding period in 2008, *richesse* was lagging behind in the East and South by 0.2°, in the West by 0.1° and in the Centre by 0.4° whereas, in the North, it was higher by 0.7°. Compared to the corresponding period in 2007, sucrose content for the present crop was similar in the South but was below in sectors North and Centre, the difference being 0.2°, and 0.3° respectively. In both the East and West, it was higher than that of 2007 by 0.3°.

**Table 4b Comparison of Pol % Cane (*richesse*) at the end of July and August 2007, 2008 and 2009.**

Sectors	JULY			AUGUST		
	2007	2008	2009	2007	2008	2009
North	12.8	13.0	13.8	14.6	13.7	14.4
East	13.7	14.2	13.5	14.3	14.8	14.6
South	13.7	13.7	13.2	14.1	14.3	14.1
West	13.8	14.2	14.0	14.5	14.9	14.8
Centre	12.9	13.2	12.5	13.7	13.8	13.4
Island	13.4	13.7	13.4	14.3	14.3	14.3

From end-July 2009 to end-August 2009, *richesse* has improved in all sectors. The highest increment of 1.1° was observed in the East followed by 0.9° in the South and Centre, 0.8° in the West and 0.6° in the North. For the corresponding period last year, the increments recorded were 0.7° in both the North and West, and 0.6° in sectors East, South and Centre. Thus, on average for the island, the increase in *richesse* of 0.9° in 2009 was similar to that recorded in 2007 but better than the 0.6° in 2008.

Island-wise, the *richesse* of 14.3% at the end of August 2009 was the same as that of the corresponding period in 2007 and 2008.

## 4. CROP 2009

As at 29 August 2009, 13 102 ha representing about 38 % of miller-planters' land had been harvested compared to 13 222 ha (38%) at the same period last year. Sector-wise and for miller-planters only, harvested area reached 18% in the North, 38% in the East, 44% in the South, 50% in the West and 37% in the Centre. An analysis of cane and sugar productivity based on the harvest statistics for miller-planters follows. However, following the centralization of milling activities and the transfer of canes from one factory area to another, the comparisons made are not strictly comparable for sugar productivity and extraction rates except for the North, West and South sectors where data for the same factory areas are presented. Since all the canes from the Centre sector is being sent to the East, harvest statistics in terms of extraction rate and sugar productivity have been combined for these two sectors.

### 4.1 Cane productivity (Table 5a)

Cane productivity for the island as at 29 August 2009 amounted to 85.2 TCH and was higher than the 79.4 TCH recorded in 2008. Sector-wise, the best cane productivity to-date was recorded in the West with 97.4 TCH, followed by the North (84.3 TCH), the South (84.0 TCH), the East (83.9 TCH) and the Centre (79.2 TCH). Compared to the corresponding period in 2008, cane productivity to-date was the same in the South but higher in sectors North, East and West by 16.7 TCH, 7.4 TCH and 10.6 TCH, respectively. In the Centre, cane productivity at the end of August 2009 was below that of 2008 by 1.6 TCH.

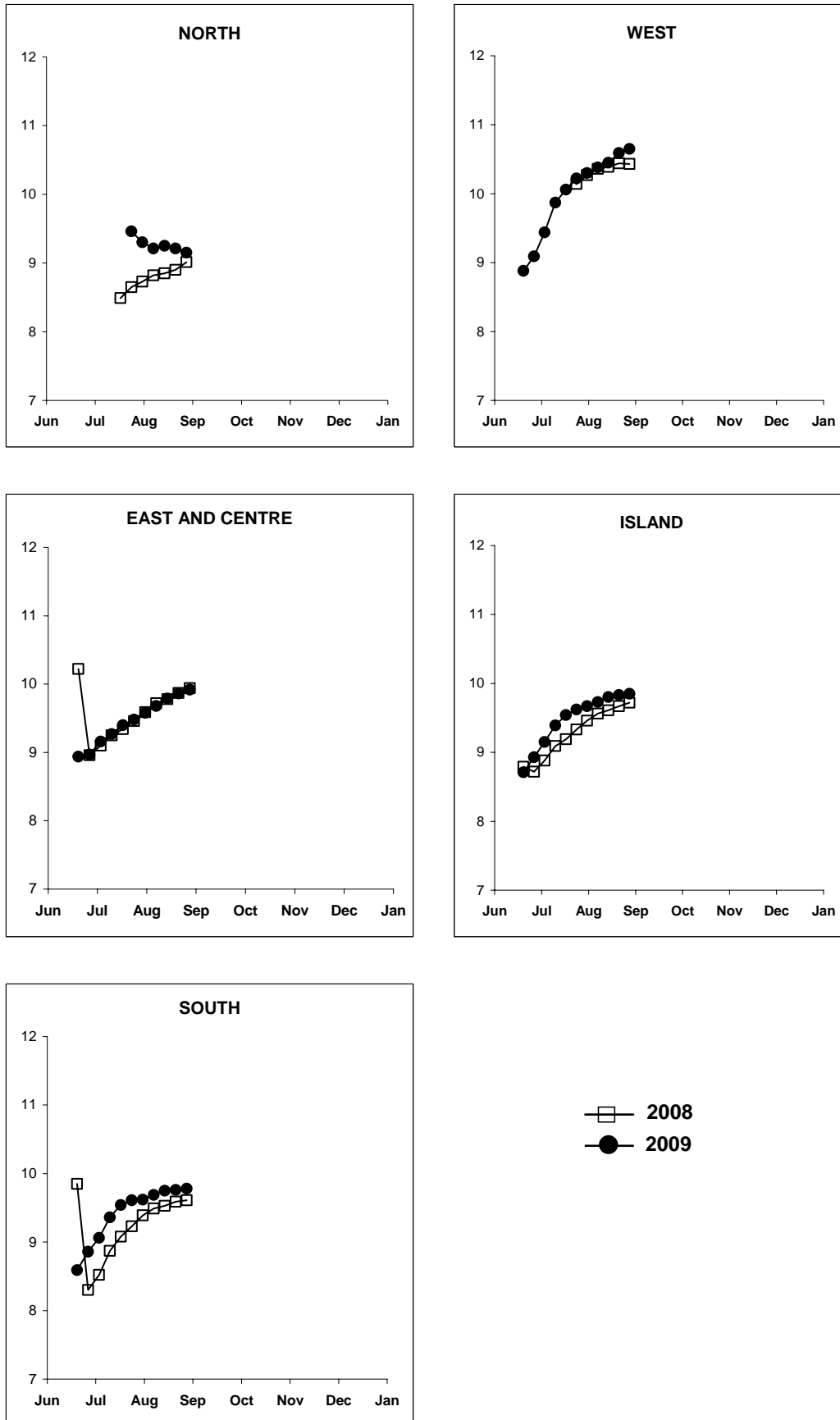
**Table 5a Cane productivity (TCH) as at end July and August for the 2008 and 2009 crops**

Sectors	End July		End August	
	2008	2009	2008	2009
North	67.1	82.8	67.6	84.3
East	75.2	82.8	76.5	83.9
South	82.5	83.8	84.0	84.0
West	79.6	95.0	86.8	97.4
Centre	78.7	83.0	80.8	79.2
<b>Island</b>	<b>78.0</b>	<b>84.8</b>	<b>79.4</b>	<b>85.2</b>

### 4.2 Extraction (Table 5b and Figure 2)

The recorded island extraction rate of 9.85% was higher than that of the corresponding period in 2008 (9.72%) by 0.13°. Sector-wise, extraction rates recorded to-date were 9.15% in the North, 9.92% in the East-Centre, 9.78% in the South and 10.65% in the West. Compared to the corresponding period last year, extraction rate to-date was slightly lower in the East-Centre sector but higher in the other sectors, the advantage being 0.14° in the North, 0.17° in the South and 0.22° in the West. It should be noted that last year's extraction rate for East-Centre sector included part of the cane harvested from Mon Loisir factory area.

**Figure 2. Evolution of extraction rate for the 2008 and 2009 crops**



**Table 5a Extraction rate (%) as at end July and August for the 2008 and 2009 crops**

Sectors	End July		End August	
	2008	2009	2008	2009
North	8.65	9.46	9.01	9.15
East /Centre	9.46	9.48	9.94	9.92
South	9.23	9.61	9.61	9.78
West	10.14	10.22	10.43	10.65
<b>Island</b>	<b>9.33</b>	<b>9.62</b>	<b>9.72</b>	<b>9.85</b>

### 4.3 Sugar productivity (Table 5c)

Island-wise, the recorded sugar productivity of 8.39 TSH exceeded that of the corresponding period in 2008 (7.72 TSH) by 0.67 tonne. Sector-wise sugar productivity was 7.71 TSH in the North, 8.22 in the East-Centre and the South, and 10.37 TSH in the West. Sugar productivity was higher in all sectors compared to that of the corresponding period in 2008.

**Table 5c Sugar productivity (TSH) as at end July and August for the 2008 and 2009 crops**

Sectors	End July		End August	
	2008	2009	2008	2009
North	5.80	7.83	6.09	7.71
East / Centre	7.19	7.85	7.66	8.22
South	7.61	8.05	8.07	8.22
West	8.07	9.71	9.05	10.37
<b>Island</b>	<b>7.28</b>	<b>8.16</b>	<b>7.72</b>	<b>8.39</b>

## 5. 2009 CROP PRODUCTIVITY

Cane productivity progressed slightly during the month of August (85.2 TCH) to exceed that recorded at the end of July 2009 (84.8 TCH) and the end-August yield of 79.4 TCH by 5.8 TCH, an advantage of 7.3% over last year's realization. With regards to extraction rate, the increase during the month of August has been below that recorded during the same month in 2008. In fact the gain in 2009 was 0.23° compared to 0.39° in 2008. Thus the difference that amounted to 0.29° at the end of July shrunk to 0.13° by end-August. This is attributed mainly to the excessive rainfall recorded in all sectors apart from the West and which has been detrimental to ripening. Sugar productivity is still higher than that of 2008 at the corresponding period but the advantage has shrunk from 12% at end-July to 8.7% at end-August 2009.